

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number  
**WO 2005/036267 A2**

(51) International Patent Classification<sup>7</sup>:

**G03F 7/00**

(74) Agent: HASEGAWA, Yoko; #403, Horiguchi Bldg.  
2-3, Nihombashi Ningyocho 2-chome, Chuo-ku, Tokyo,  
1030013 (JP).

(21) International Application Number:

PCT/JP2004/015640

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(30) Priority Data:

2003-355032 15 October 2003 (15.10.2003) JP

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): TOKYO OHKA KOGYO CO., LTD. [JP/JP]; 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa, 2110012 (JP).

(72) Inventors; and

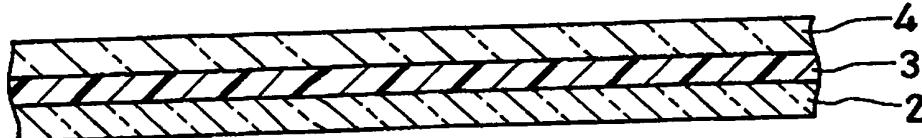
(75) Inventors/Applicants (*for US only*): TANAKA, Yukihiko [JP/JP]; c/o Tokyo Ohka Kogyo Co., Ltd., 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 2110012 (JP). ASAHI, Shinkichi [JP/JP]; c/o Tokyo Ohka Kogyo Co., Ltd., 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 2110012 (JP). KATSUMATA, Naoya [JP/JP]; c/o Tokyo Ohka Kogyo Co., Ltd., 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 2110012 (JP).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PHOTOSENSITIVE RESIN COMPOSITIONS AND PHOTOSENSITIVE DRY FILMS USING THE SAME



**WO 2005/036267 A2**

(57) Abstract: It is disclosed a photosensitive resin composition comprising (a) a binder polymer based on a copolymer containing benzyl (meth)acrylate as a building block, (b) a photopolymerizable compound having at least one polymerizable ethylenically unsaturated group in the molecule and (c) a photopolymerization initiator based on a hexarylbisimidazole compound, with a light-initiated color former being optionally contained as component (d). The composition has long-term keeping quality, exhibits particularly high resistance to plating and dry etching, as well as assuring improvement in resolution and adhesion; the composition may be used to form a photosensitive dry film.